

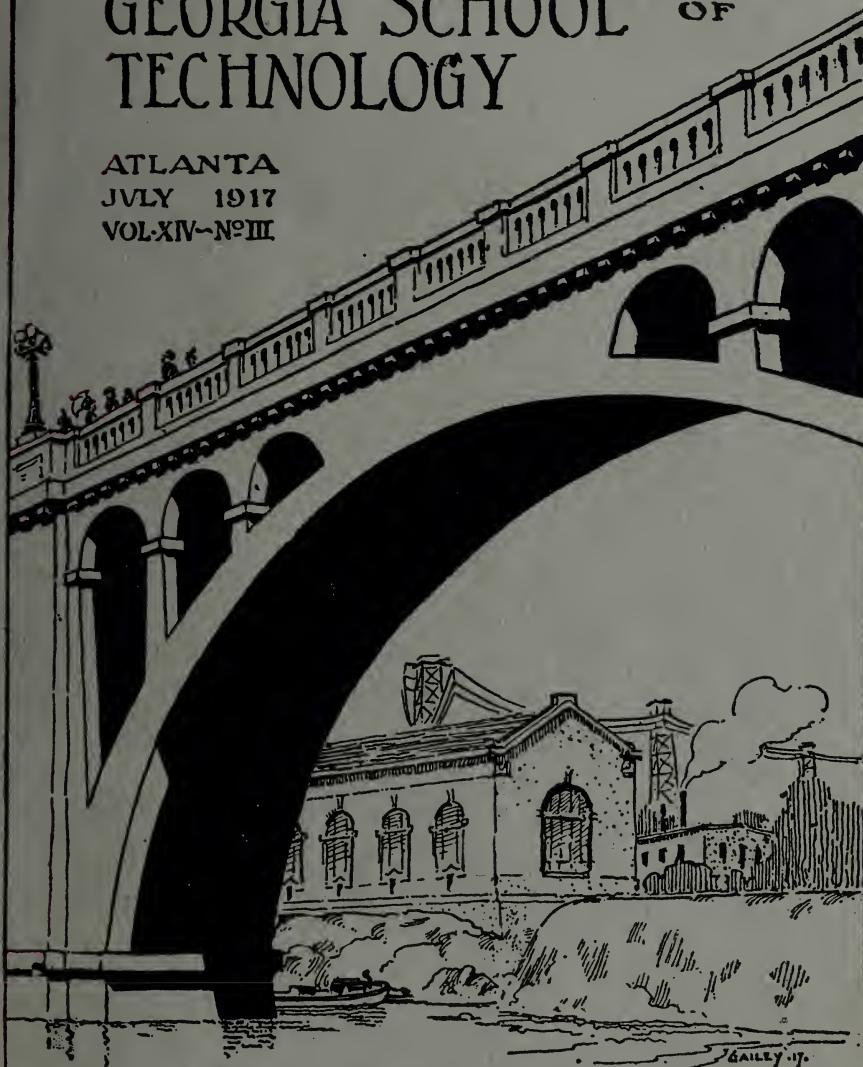
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JUN 16 1918

# BULLETIN OF THE GEORGIA SCHOOL OF TECHNOLOGY

ATLANTA  
JULY 1917  
VOL.XIV-N<sup>o</sup>III



MECHANICAL · CIVIL · ELECTRICAL  
TEXTILE · CHEMICAL ENGINEERING  
CHEMISTRY · ARCHITECTURE · COMMERCE



# BULLETIN OF THE GEORGIA SCHOOL OF TECHNOLOGY

A BOOKLET WHICH AIMS TO GIVE SOME GENERAL FACTS ABOUT COURSES OF STUDY AND STUDENT-LIFE AT THIS INSTITUTION. THE ILLUSTRATIONS USED ARE REPRESENTATIVE BUT BY NO MEANS EXHAUSTIVE

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"It is particularly important that the work at our technical schools should continue unabated in order that the supply of trained men may be kept up from year to year, and men of this type made available for service in the different lines of technical work which modern war demands on the fighting line and in the ship-yards, factories, chemical works, steel plants and other industries whose efficient administration and conduct is vital to the fighting strength of the nation."

—General Leonard Wood.

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Entered at the Post Office at Atlanta, Ga., as second-class matter, under Act of Congress July 16th, 1894

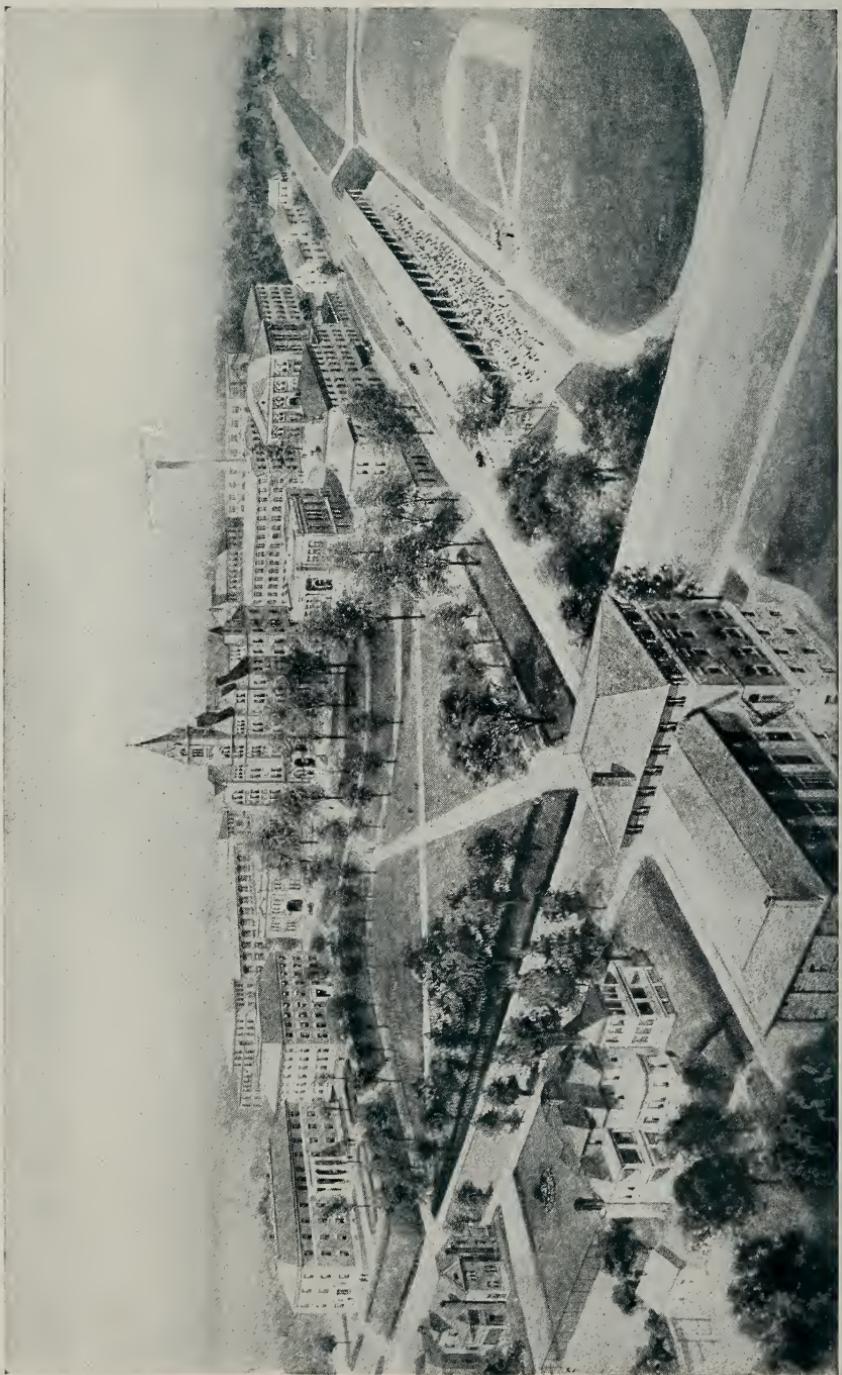
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PUBLISHED FIVE TIMES A YEAR BY THE GEORGIA SCHOOL OF TECHNOLOGY

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ATLANTA, GA.  
♦♦ JULY, 1917 ♦♦

VOLUME XIV  
NUMBER 3



BIRD'S-EYE VIEW OF THE PLANT OF THE GEORGIA SCHOOL OF TECHNOLOGY.

# The Georgia School of Technology

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## AIM.

The aim of the Georgia School of Technology is to educate young men for lives of greater usefulness—to give them a training which will enable them to rise to positions of leadership in the business and industrial world. The courses offered are Mechanical Engineering, Electrical Engineering, Civil Engineering, Textile Engineering, Chemical Engineering, Chemistry, Architecture, and Commerce. The first two years of the course are devoted chiefly to general training in such subjects as English, Mathematics, Physics, Chemistry, and Drawing. On this foundation, the student specializes, during the remainder of the course, on the technical or professional work leading to his degree.

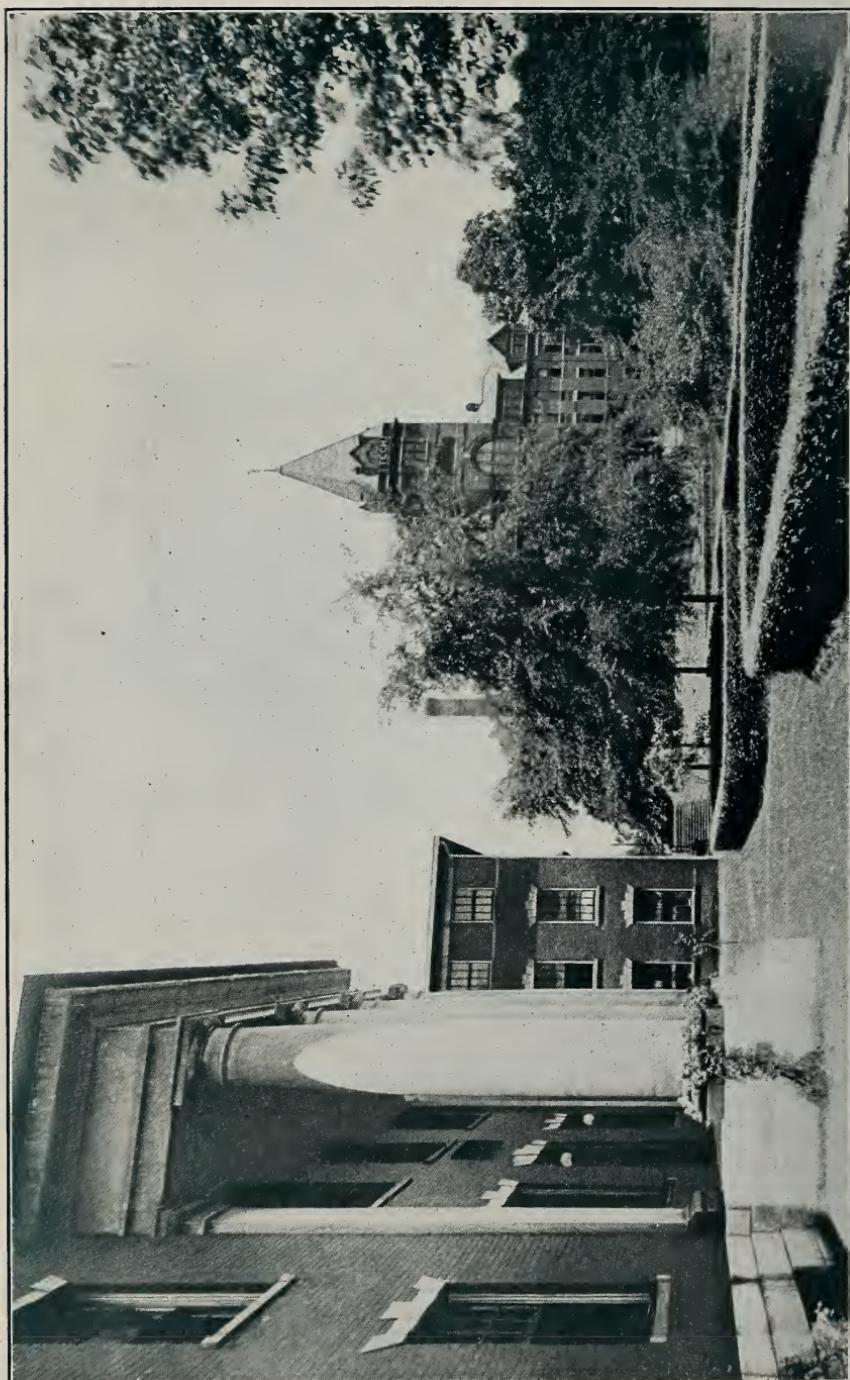
## TECHNICAL TRAINING.

The term, *Technical Training*, as commonly employed refers to education in the useful or mechanical arts. It is sometimes called *Applied Science*, since it teaches the student to use his knowledge or to apply it to some form of serviceable activity. The technical school has arisen from the idea that knowledge is not only something to *have* but something to *use*. Whether the technical school graduate becomes an engineer, or enters some other field of activity, he has a foundation on which to build successfully, for he has been trained in the scientific and in the practical method—he knows how to *think rightly* and how to *work efficiently*.

## ENGINEERING.

Engineering has been defined as "the art of organizing and directing men, and of controlling and using the forces and materials of nature for the benefit of mankind." Engineering is above all constructive and serviceable. It adds to the wealth and civilization of the community by converting useless materials and forces into forms which are highly useful. It is to it that we owe our railroads, manufacturing plants, steamships, canals, water and sewerage systems, gas plants, improved streets and highways, irrigation, bridges, skyscrapers, automobiles, and electrical industries, including water power development, car lines, telephones, telegraphs, lights, etc.

The engineers today who are the leaders in their profession are men with a thorough technical training followed up by the most careful application to practical work.



WEST SIDE OF CAMPUS.



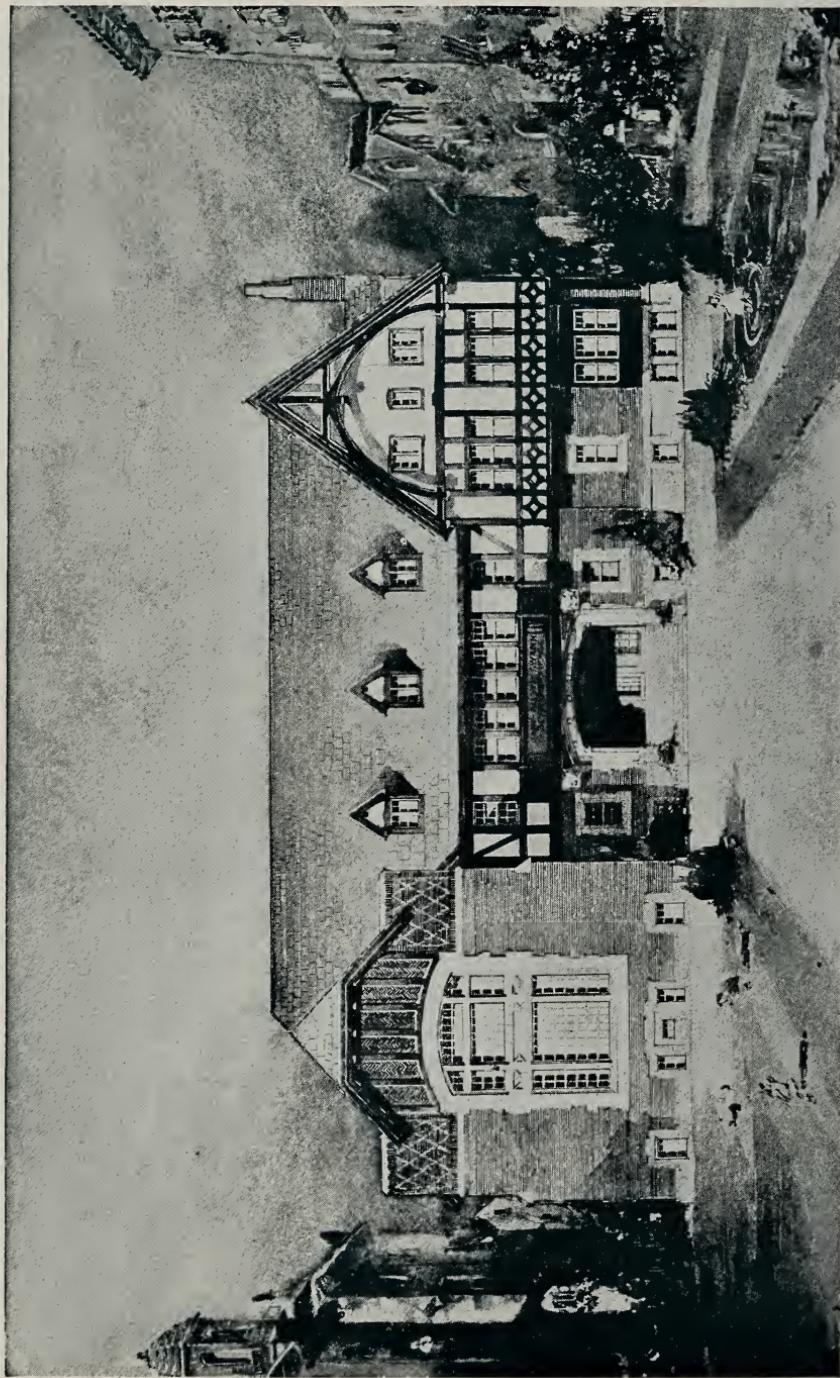
DESIGN WINNING FIRST PRIZE IN SOUTHERN INTERCOLLEGIATE COMPETITION.  
Problem: "A Settlement House"—T. H. Henderson, '16.

## ARCHITECTURE.

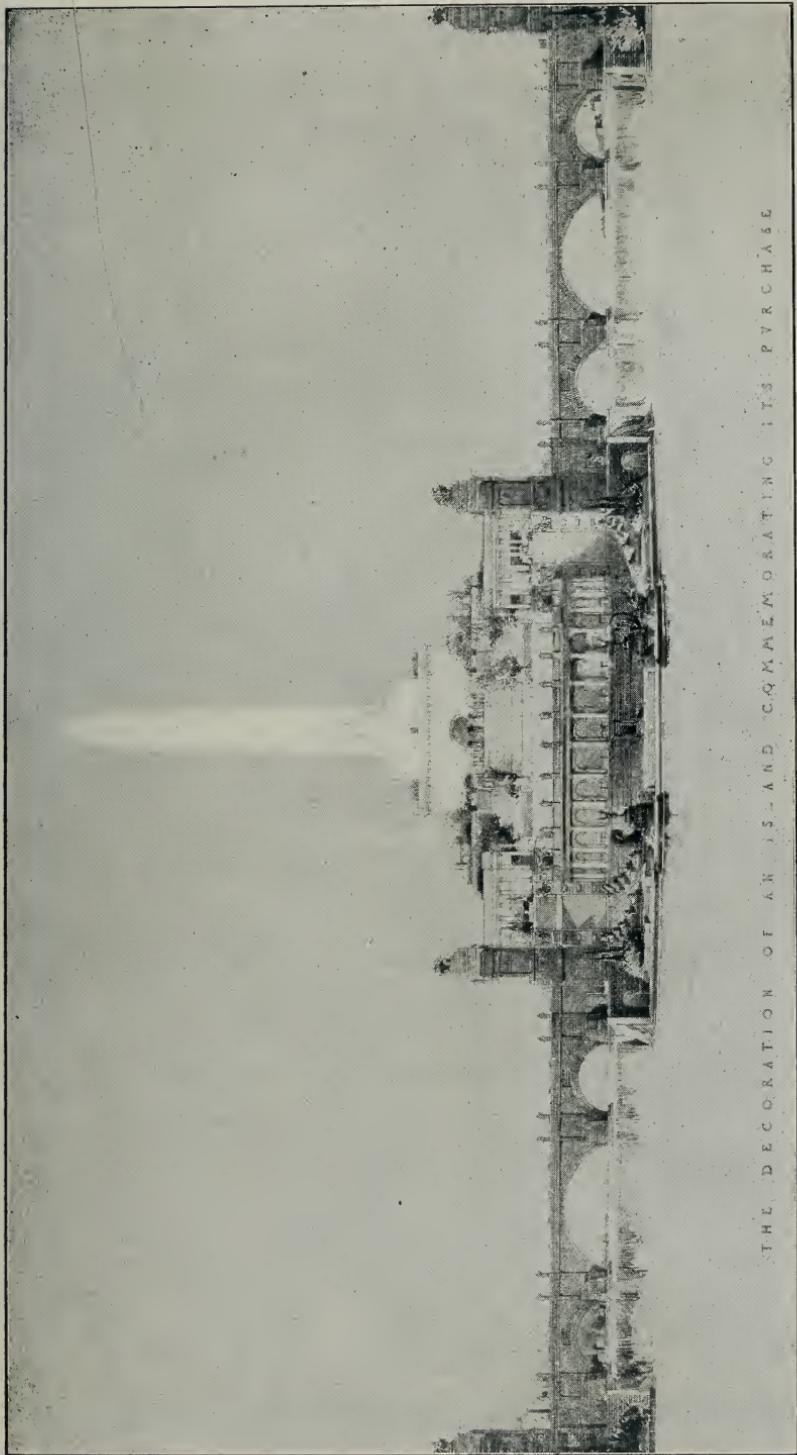
In view of the special problems in design brought about by the development of new types of buildings in this country, the field for the capable architect is a broad and fascinating one.

The Department of Architecture at the Georgia School of Technology offers two courses: a regular course of four years, including the general training, which together with the special Architectural work leads to the degree of B.S. in Architecture; and a special course of two years in which only Architecture is studied and for which a certificate is given.

Architectural Design and the subjects closely allied to it occupy the major portion of the curriculum. In the upper classes, whenever possible, problems given out by the Society of Beaux Arts Architects of America are taken. Designs submitted by Georgia Tech students have received awards in almost every competition which they have entered. Three times in four years they have won all the prizes in the Southern Inter-collegiate Competition in Architecture. In June, 1915, Mr. P. T. Shutze, a recent graduate of the School, won the Roman Prize in Architecture of the American Academy in Rome, which is one of the most highly coveted honors of its kind in the world. This prize provides residence and study in Rome and other classical lands for three years.



DESIGN WINNING SECOND PRIZE IN SOUTHERN INTERCOLLEGIATE COMPETITION.



THE DECORATION OF A HOUSE AND COTTAGE IN GREEK STYLING PURCHASED

WINNING DESIGN IN A NATIONAL COMPETITION (1915) FOR THE ROMAN PRIZE—Fellowship of the American Academy in Rome.  
P. T. Shutz, '12.

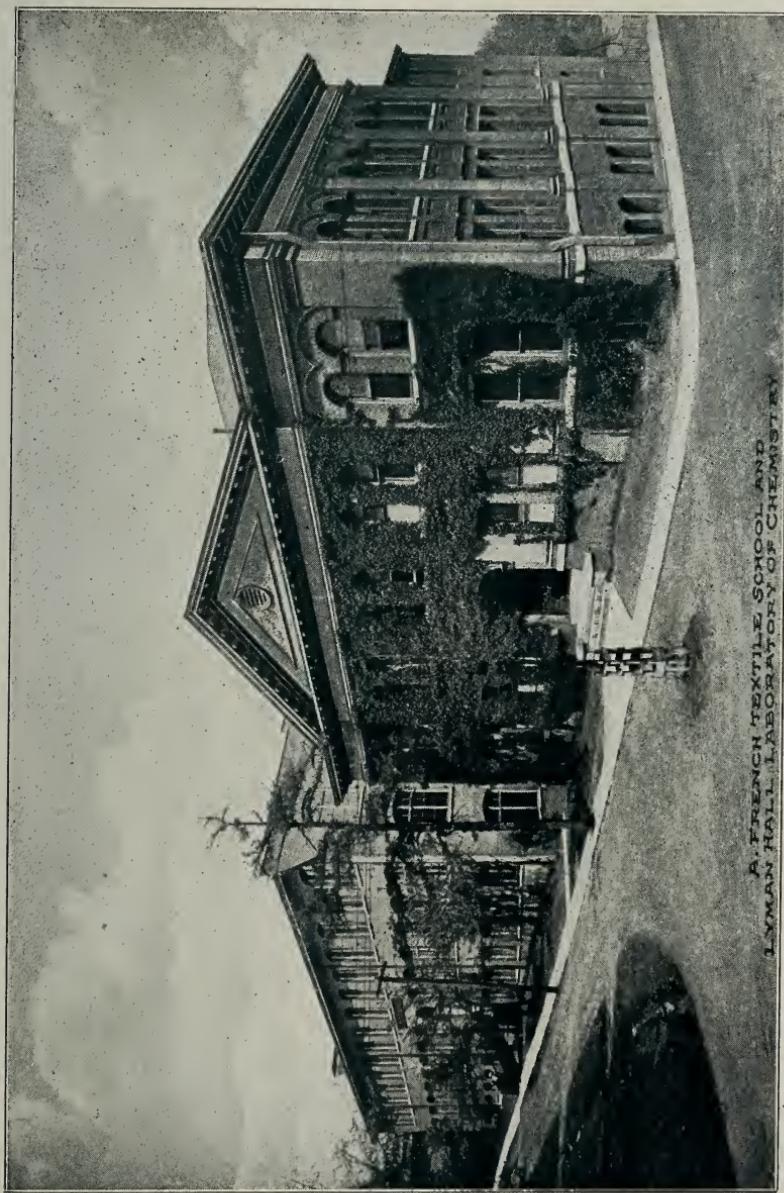


SENIOR LABORATORY.

## CHEMISTRY AND CHEMICAL ENGINEERING.

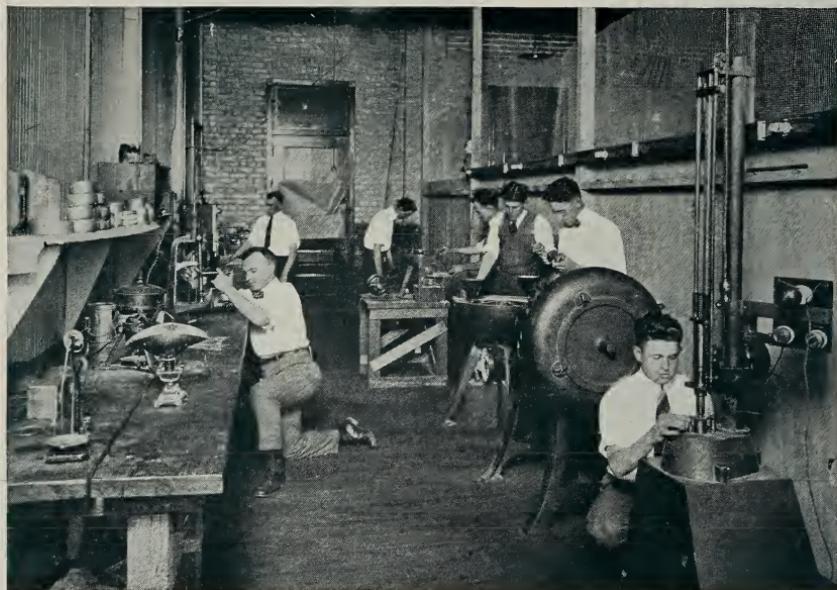
The South has almost unlimited mineral and agricultural resources, the development of which has been especially rapid during recent years. This has caused an urgent demand for men with thorough training in Chemistry and Chemical Engineering to develop and control processes for the treatment of the various raw materials and the recovery of the waste by-products. Furthermore, the state of war that exists between this country and several European countries prevents the importation of many materials manufactured abroad and needed by American industries and also introduces a need for war materials in large amount. The Chemist and Chemical Engineer must solve the problem of supplying these materials.

To meet these needs, the Department of Chemistry offers two courses leading to degrees, and is well provided with laboratories, books, and apparatus needed for the purpose of instruction. In the course in Engineering Chemistry, the students are well grounded in Physics and various chemical and engineering subjects so as to insure their ability to take up satisfactorily any line in which Chemistry is applied to the industries. The course in Chemistry, on the other hand, substitutes for the engineering subjects, work in Geology, Mineralogy, and Assaying and more extensive practice in analytical methods, thus meeting the demand for skilled chemists and analysts in those positions not demanding engineering knowledge.



A. FRENCH TEXTILE SCHOOL AND  
LYMAN HALL LABORATORY OF CHEMISTRY.

THE LYMAN HALL LABORATORY OF CHEMISTRY.  
The A. French Textile School in Background.



GOOD ROADS LABORATORY—Students Testing Road Material.

## CIVIL ENGINEERING.

A course in Civil Engineering trains a man for such work as the planning and construction of railroads, highways, bridges, canals, water-works and sewerage systems, hydraulic power development, irrigation and drainage systems, and concrete and steel structures of various kinds. The course is so outlined as to fit the student to be of immediate value in practically all the subordinate positions of the profession and to bring him to a point where he may be able to continue his studies professionally and develop in any particular field which he may choose. He is trained for service not only in Railway and Structural Engineering, but also in Municipal and Highway Engineering—fields of unusual importance and opportunity on account of the great movement for modern water and sewerage systems and the demand for engineers with special knowledge of road materials, and of modern highway construction and maintenance.

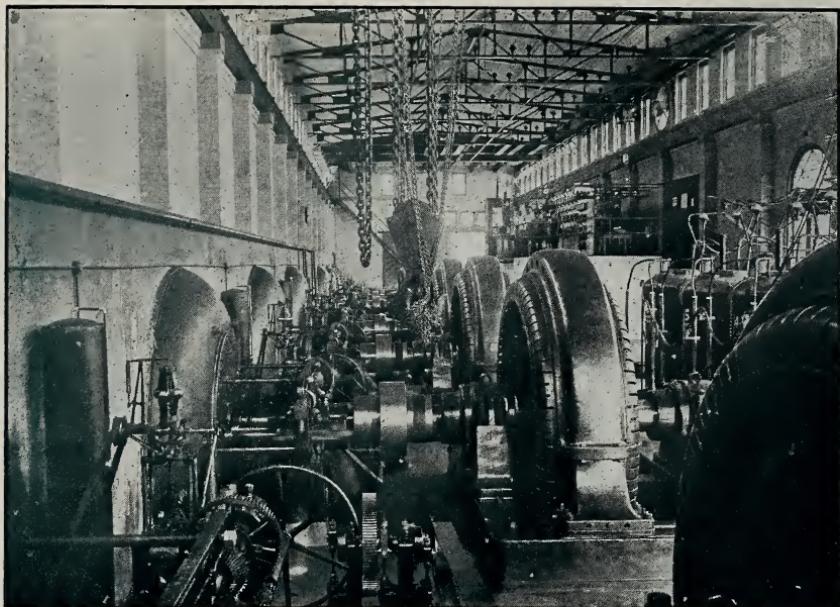
The department of Civil Engineering at Georgia Tech has special advantages through a system of co-operation with Fulton County and the City of Atlanta. The Head of the Department of Highway Engineering is also the consulting Highway Engineer of the county and the city, and the city specialist in water supply and sewage disposal gives two courses at the School in Sanitary Engineering. The various engineering works of city and county are open to the students for practical inspection.



STRUCTURAL WORK IN CONCRETE.



STRUCTURAL WORK IN STEEL.

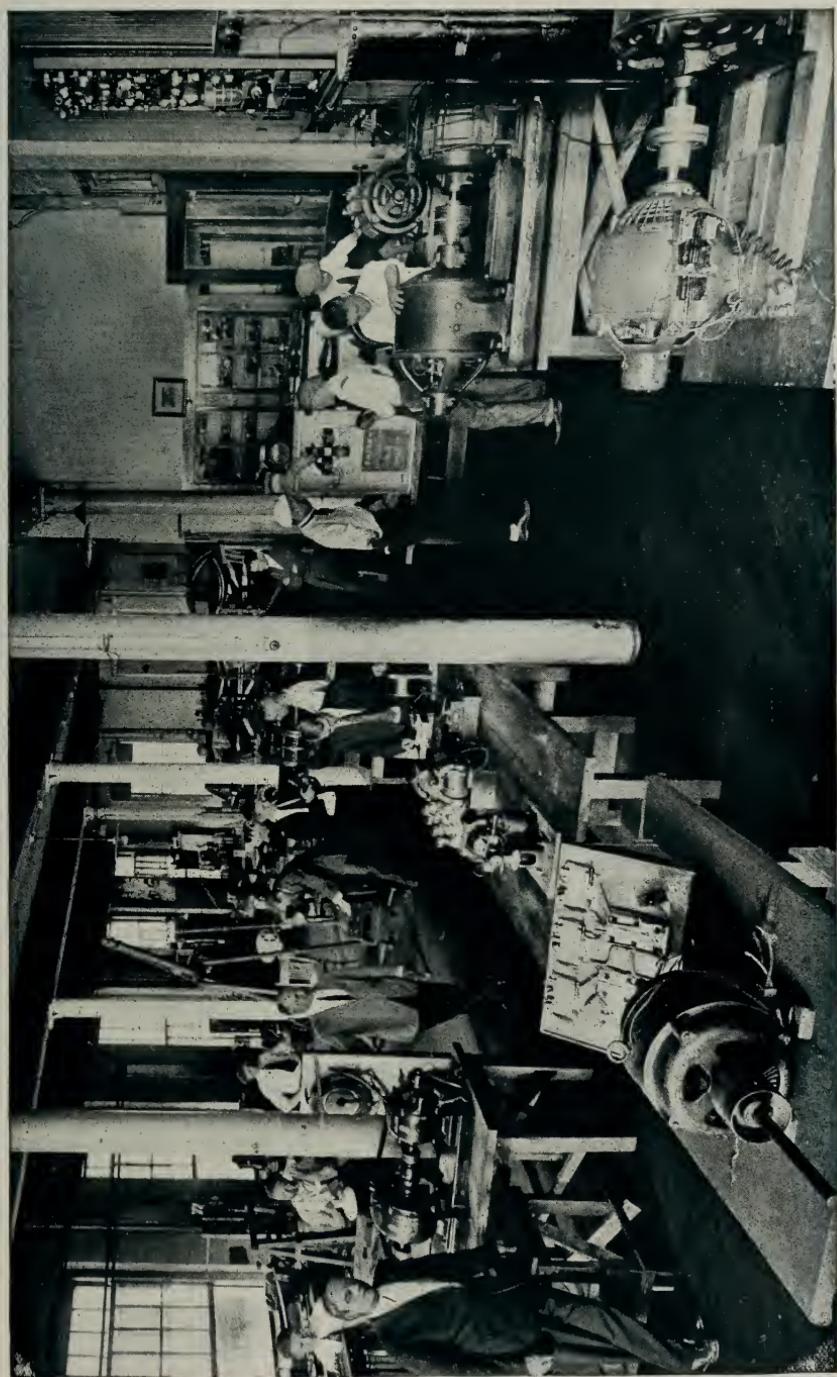


A HYDRO-ELECTRIC POWER STATION OF THE GEORGIA RAILWAY AND POWER CO.  
The General Manager and Some Twenty Other Officers or Engineers  
of This Company are Georgia Tech Men.

### ELECTRICAL ENGINEERING.

Two courses of study in Electrical Engineering are offered, the one extending for four years and leading to the degree of B.S. in E.E.; the other extending for two years and leading to a Certificate. The latter course is intended for men of some experience who can not well spend four years at college. Both of these courses aim to give the fundamental principles of engineering to the student so as to develop his analytical ability to attack any problem that may arise.

There are many opportunities for the right men in the South. The extraordinary hydro-electric development is leading to the establishment of manufacturing plants, interurban railways, electro-chemical works, etc. There is an increasing demand for men as designers, constructors, operators and managers of electrical plants. The rapid growth of systems of communication by the telephone and telegraph companies have caused a demand for electrical engineers which exceeds that of all of the other electrical industries.



A SECTION OF THE ELECTRICAL ENGINEERING LABORATORY.



#### SOME PRODUCTS OF THE FRESHMAN WOODSHOP

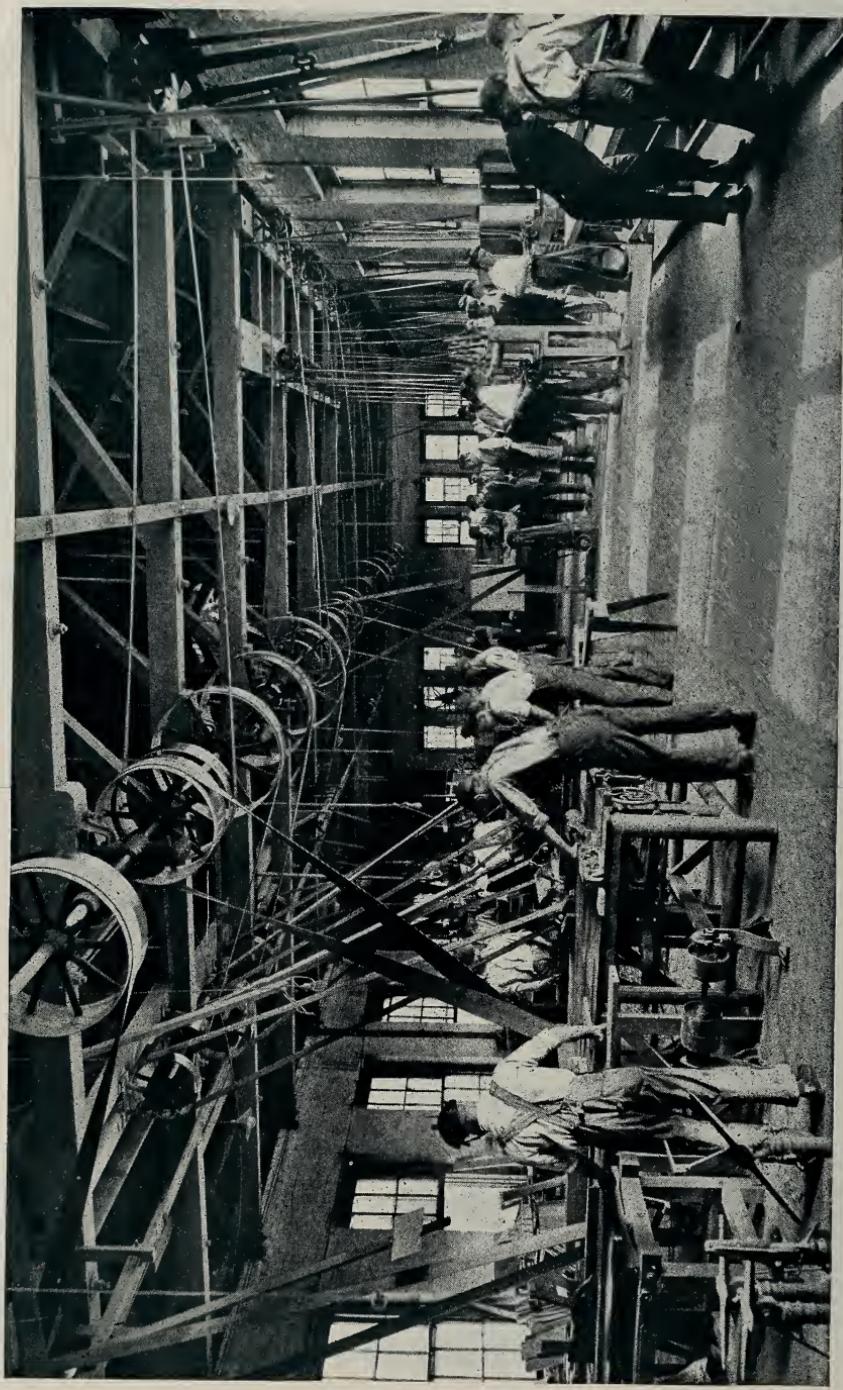
The object of the shop course is not to train artisans, but to give shop experience to all students.

## MECHANICAL ENGINEERING.

The course in Mechanical Engineering aims to equip men for successful work in the design, construction, operation and testing of machinery, such as steam engines, gas engines, pumping machinery, steam boilers, transmission machinery, railroad equipment, etc. The steel industry, cotton and cotton oil industry, railroading of all kinds, building construction, and many other similar activities demand men competent to deal with the theoretical or scientific, as well as with the practical side of commercial and constructive work. With this end in view Mechanical Engineering is taught in both its theoretical and its practical aspects. In addition to the course of study in the class room, the students are required to do practical work in the shops and laboratories. They work in the wood shop, smith shop, foundry, and machine shop, and in the several testing laboratories. Thus they learn to *do* as well as to *know*.

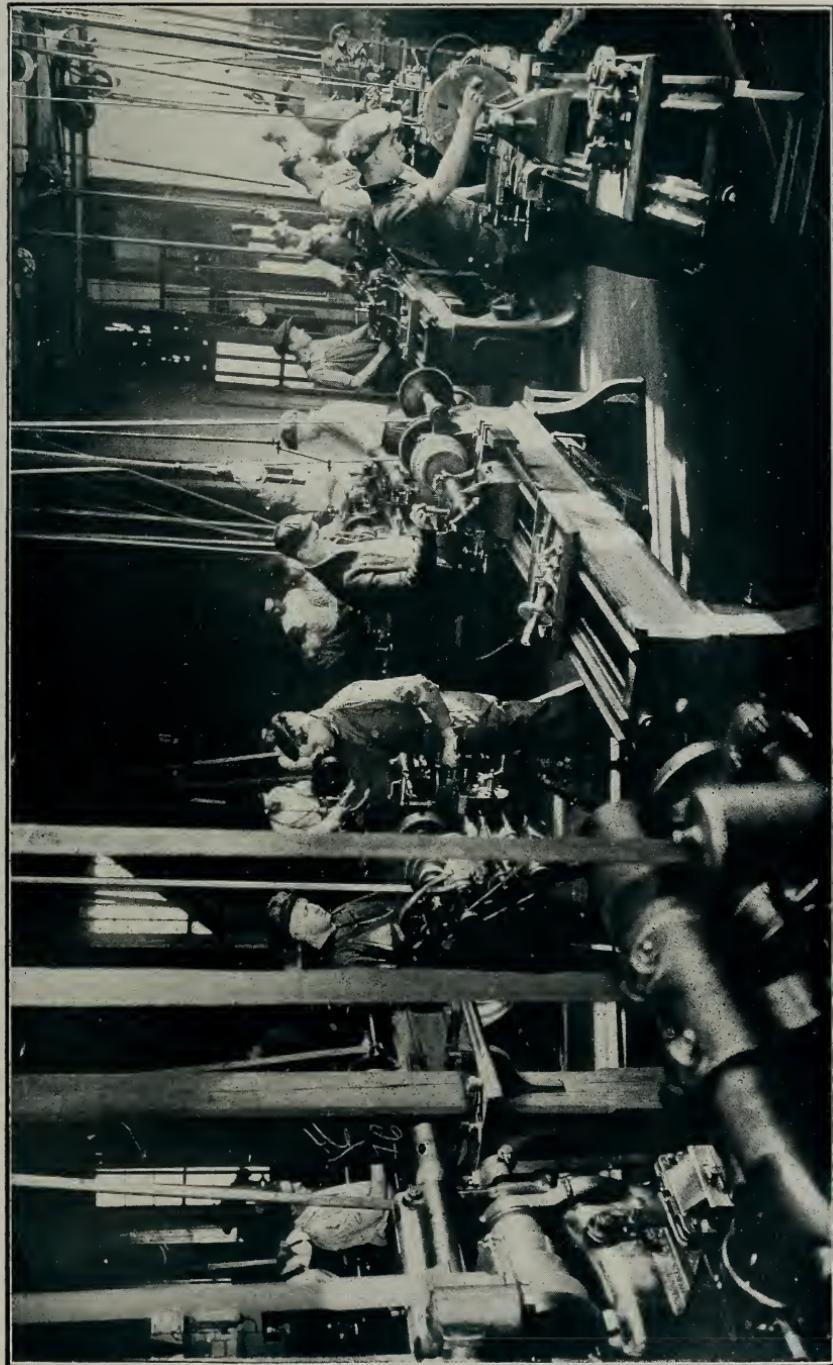


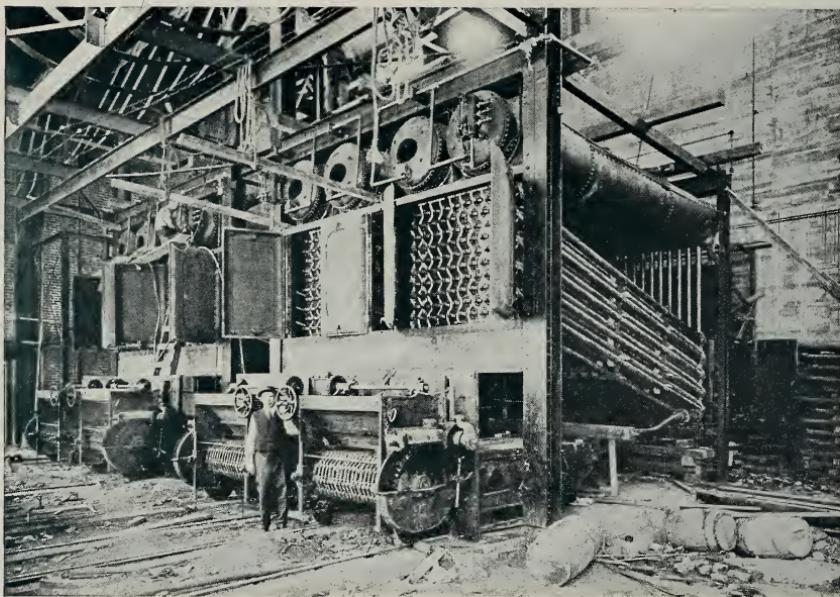
A CORNER OF THE WOODSHOP—Students Doing Bench Work.



FRESHMEN WORKING AT LATHES AND PLANERS.

SOPHOMORES IN MACHINE SHOP—"LEARNING BY DOING".

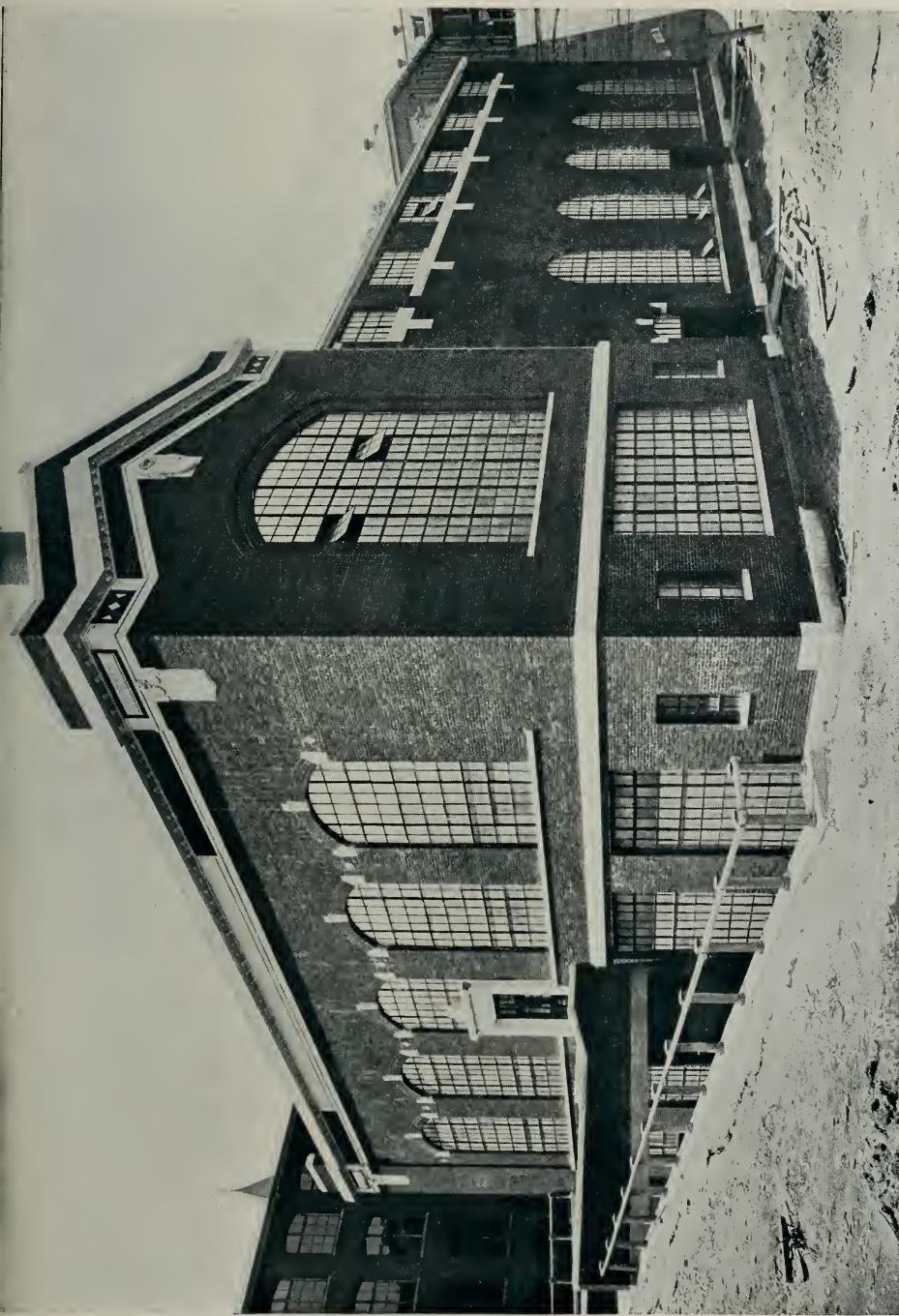




ERECTING THE BABCOCK AND WILCOX BOILERS IN POWER STATION.  
These boilers are equipped with chain grate stokers, super-heaters, etc.

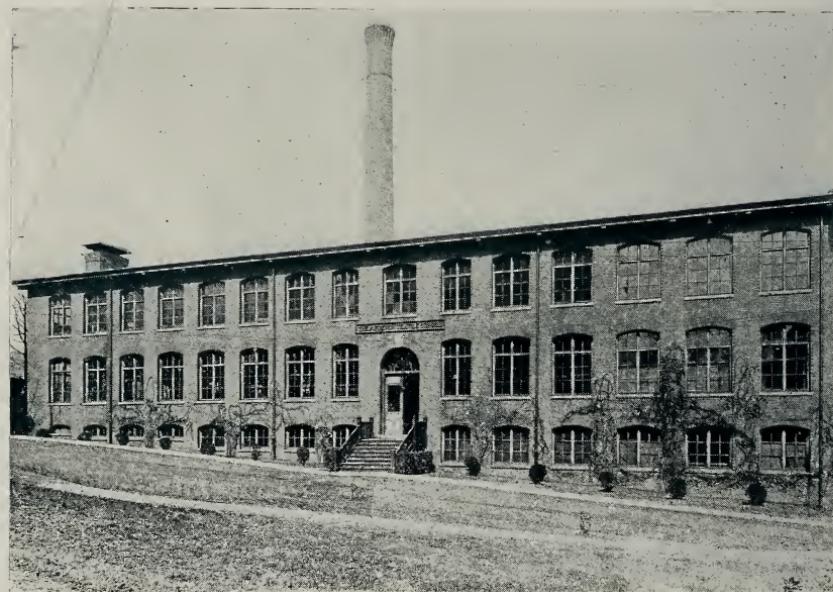
### NEW POWER STATION AND ENGINEERING LABORATORY.

The new Power Station and Laboratory will be ready for use during the coming session. It is designed not only to supply light, heat, power, compressed air, high pressure water service, and refrigeration, but also to furnish a high class laboratory of instruction and experimental work. It will place this school in a position to turn out engineers thoroughly fitted to undertake large power problems in steam and hydraulic plants. The large amount of undeveloped water power in the South, as well as our vast resources in coal supply, make it vitally important that engineers receive thorough instruction in a power laboratory of this kind. This building is the beginning of a plan to establish complete equipment for all kinds of engineering research work, and it will open unlimited opportunities for the graduate of the school in original and scientific investigations as well as in the regular field of engineering work. The Power Station equipment, valued at \$125,000.00, has been largely donated by manufacturers. It is modern and complete in every detail and far superior to that usually found in Engineering institutions.



THE NEW POWER STATION AND ENGINEERING LABORATORY.

This building will contain a complete equipment of the most modern machinery.



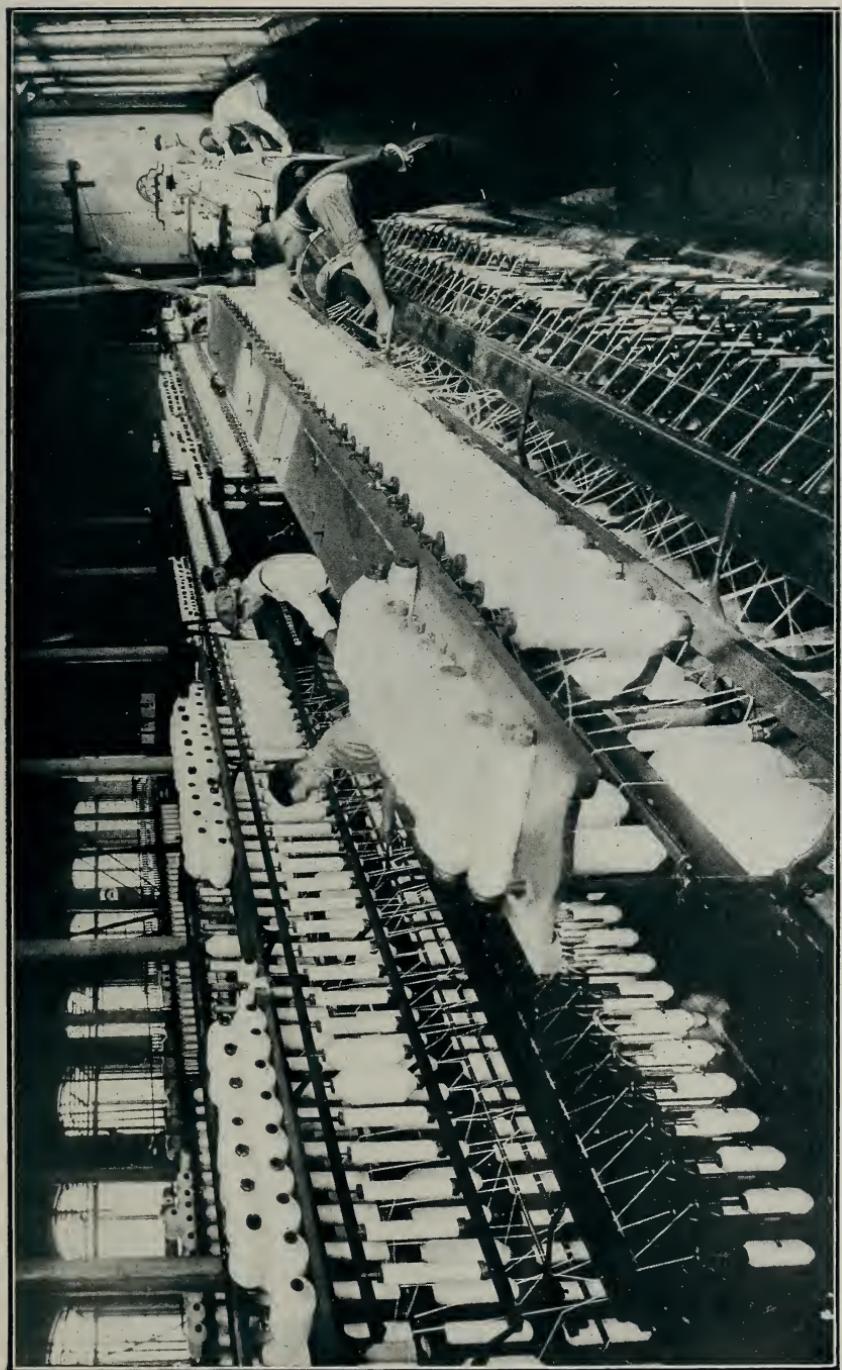
THE A. FRENCH TEXTILE SCHOOL.

## TEXTILE ENGINEERING.

The A. French Textile School of The Georgia School of Technology is devoted exclusively to the study and practice of cotton manufacturing. This department occupies an entire building of three stories, which contains one of the most complete collections of modern cotton mill machinery to be found anywhere. Every process from the raw cotton to the finished fabric, including Dyeing, Fabric Analysis, and Fabric Design, is thoroughly taught both by theory and by practice.

In addition to the regular four-year course leading to a degree, the Textile Department offers a special two-year course for young men who are not able to remain longer. In this course the student devotes practically all of his time to textile subjects, but misses the valuable training in other studies, which he would get by completing the work for his degree.

The South needs engineers of all kinds for the proper development of its resources, but, because of the magnitude of the cotton industry, it needs, perhaps, more textile engineers than any other type.



TEXTILE STUDENTS DOING PRACTICAL WORK IN THE SPINNING DEPARTMENT.

## THE SCHOOL OF COMMERCE.

This school trains men for positions as general executives, sales managers, office managers, factory superintendents, accountants, and financiers. Special emphasis is given to trade between the United States and Latin American countries.

An investigation is made of the American methods of operating factories, banks, insurance companies, and mercantile and other business concerns and their methods of advertising and selling. A study is made of the location of factories, the sources of raw materials, the economic conditions which determine the location of factories, and the methods and facilities of transportation. A study is, also, made of the American government, its methods of operation and its laws governing commerce.

This institution has combined the experiences of others so as to afford the best training possible for commercial positions. The changed character, scope, and methods of modern business have united to demand men with a training superior to anything ever needed before. The course covers four years' study and leads to the degree of Bachelor of Science.

## CO-OPERATIVE PLAN IN ENGINEERING.

Arrangements have been made with a number of Atlanta manufacturers which enable the Georgia School of Technology to give courses in Electrical and Mechanical Engineering on what is known as the Co-operative Plan. Students taking such courses work two weeks in the class rooms and laboratories, and the next two weeks in the shops and factories, learning, under actual commercial conditions the practical side of what they have learned in the school. The student is paid by the manufacturer for his work, and this helps many a worthy young man to pay a part of his expenses, though it is by no means the chief aim of the co-operative plan. The amount of this income ranges from \$125 to \$300 per year.

Nothing included in the regular course is omitted, and at the end of five years the student receives his regular degree, and, in addition, he has to his credit a great deal of practical experience, which is exceedingly valuable. The benefits more than compensate for the extra year.

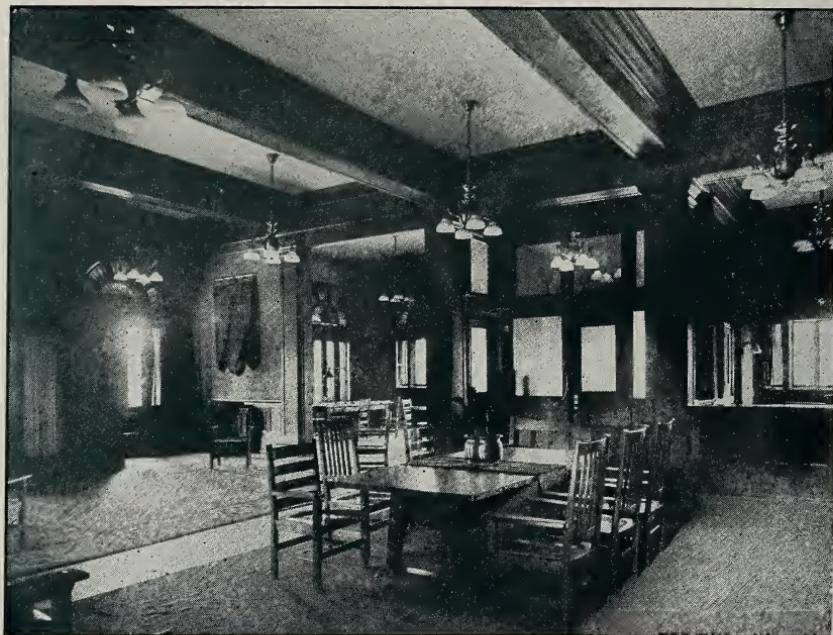
This plan has not been open to freshmen, but since the war emergency has given the services of these students a new importance, they are being put to work during the summer as soon as their applications are approved.



THE COMMERCE CLUB.



THE CARNEGIE LIBRARY.



LOBBY AND READING ROOM, ROCKEFELLER Y. M. C. A.

**Y. M. C. A.**

The Y. M. C. A. is the largest student organization at Georgia Tech, and during the past year practically every student availed himself of the opportunity it offers. The Association is the only religious organization among the students, and ministers in various ways to their character and to the spiritual side of their lives.

The building, which is the pride of the whole school, is located directly across North Avenue from the main campus and the athletic field. The two lower or basement floors are devoted to student enterprises and enjoyment. A fine bowling alley, a large pool room and a restaurant are operated for the boys. The offices of the school papers, the Coach's office, the postoffice, a locker room, a barber shop and showers are also on the two lower floors. The main floor consists of a fine lounging room or lobby, two reading rooms, a big auditorium and the secretaries' office. The second floor has the faculty club rooms, the band room, two guest rooms, and an assembly room for the literary societies and devotional purposes. The third floor is a dormitory for upper class men.

The Association, with its excellent equipment, constitutes the real center of student life. Its splendid new home offers a wholesome atmosphere and adequate amusement, making it unnecessary for a boy to go to the city to spend his idle hours.

The Secretaries have had special training for work among college men, and they stand always in advisory and friendly relation to the students.



Y. M. C. A. BUILDING—OFFICERS—LUNCH ROOM.



1916 BASEBALL TEAM.

This team lost one series in a schedule which included Vanderbilt, Sewanee, Auburn, Georgia, Mercer, Trinity, Mississippi, and W. Va. Wesleyan.

### ATHLETICS AND STUDENT ACTIVITIES.

Students in a school of engineering are usually busier than in an ordinary college, but it would be a mistake to suppose that at Georgia Tech there is not ample time for participating in the various athletic sports and for developing teams which are able to hold their own with the best in the South. The authorities of the School recognize the fact that physical fitness is necessary for the highest success in scholastic work, and that by rubbing elbows with his comrades on the field of sport, a student tends to develop qualities which fit him for life's battles and which no mere book-knowledge can supply. For the various out-door sports, Georgia Tech has an unusually fine athletic field, known as Grant Field, containing two football fields, three baseball diamonds, a quarter-mile track, and six tennis courts. Intercollegiate and class games in football, baseball, basketball, tennis, and track athletics, are encouraged by the faculty, but are not allowed to take up the time which belongs to the more important duties.

Among the activities which make up an important part of college life are the Y. M. C. A., which has already been described, two Literary Societies with their opportunities for training in public speaking; the Dramatic Club, the Mechanical, the Electrical, the Civil, the Textile, the Architectural, and the Chemical Engineering Societies; the musical organizations, including the Band, the Orchestra, the Glee Club; the eleven Greek-Letter Fraternities; the three Honor Societies; and the school publications, *The Technique* and *Yellow Jacket*, and *The Blue Print*.



#### CHAMPIONS OF THE SOUTH

Scores 1916 Season.

Tech	-----	61	Mercer	-----	0	Tech	-----	45	Tulane	-----	0
Tech	-----	222	Cumberland	--	0	Tech	-----	13	Alabama	-----	0
Tech	-----	9	Davidson	---	0	Tech	-----	21	Georgia	-----	0
Tech	-----	10	N. Carolina	--	6	Tech	-----	33	Auburn	-----	7
Tech	-----	7	Wash. & Lee	--	7	Total:	-----	421	Opponents	-----	20



START OF THE ANNUAL CROSS-COUNTRY RUN.



TECH BAND IN COWBOY COSTUME FOR SHRINERS' PARADE.



THE PAN-HELLENIC COUNCIL.



THE GLEE CLUB.



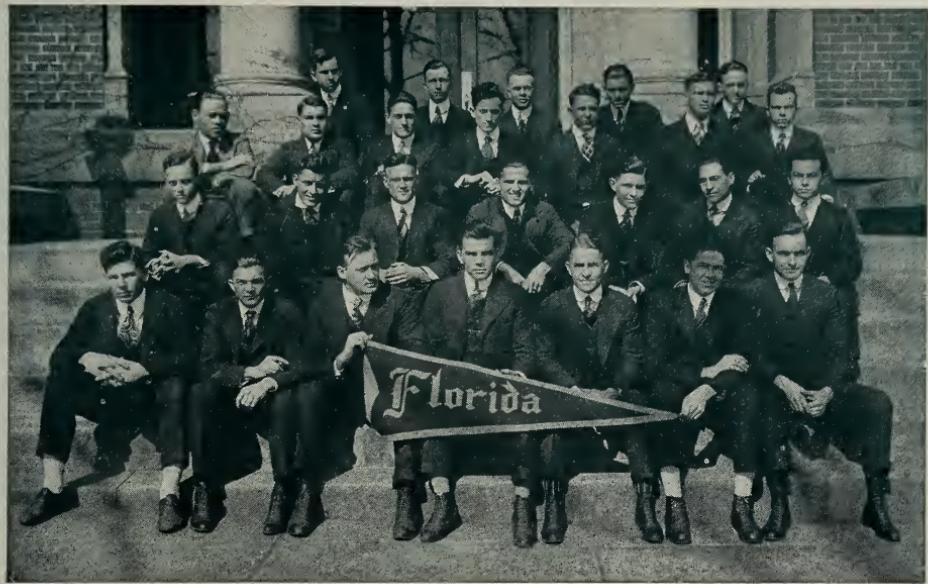
ARCHITECTURAL SOCIETY.



BRANCH OF AMERICAN SOCIETY OF CIVIL ENGINEERS.



BRANCH OF AMERICAN SOCIETY OF MECHANICAL ENGINEERS.



FLORIDA CLUB.



NORTH CAROLINA CLUB.

## ENTRANCE REQUIREMENTS.

The requirements for admission to the Georgia School of Technology are as follows:

The applicant must be at least 16 years of age, and he must present a certificate from the last school attended, showing his scholastic record, and that he is of good moral character.

He must present also, by certificate from an accredited school or by examination, 14 units of high school work, and no applicant may be conditioned in more than two units. The following units are specified:

English .....	3	Solid Geometry .....	1/2
Algebra .....	2	History .....	1
Pl. Geometry .....	1	Physics or Chemistry .....	1

The remaining five and one-half units may be made up from any regular high school subjects in addition to those listed above.

## TUITION AND FEES.

For students whose parents are legal residents of Georgia, and who hold county scholarships, the fees are:

<i>First Term</i>	<i>Second Term</i>
Semi-annual fee .....\$12.50	Semi-annual fee .....\$12.50
Student Activities .... 6.50	Student Activities .... 6.50
Medical fee ..... 5.00	Medical fee ..... 5.00
Deposit for damage.....5.00	
	_____
	\$24.00
\$29.00	

Georgia students who do not hold county scholarships will add \$12.50 per term, and students whose parents are not legal residents of Georgia will add \$50.00 per term to the above charges.

Freshmen who do not reside with their parents are required to live in the dormitories. Board and room in the dormitories, including laundry, heat, and lights, is furnished at present at \$18.00 per month, payable in advance. Living expenses of students outside of the dormitories vary from \$200 to \$300.

For catalog or other information, address.

K. G. MATHESON, President, Atlanta, Ga.



UNIVERSITY OF ILLINOIS-URBANA



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